

Legionellosis (Legionnaire's Disease)

August 1996

What is legionellosis?

Legionellosis is a disease caused by *Legionella* bacteria. There are two forms of the disease, the most serious of which may cause pneumonia. Most cases occur as single isolated events but outbreaks have occurred, such as the one in Philadelphia in 1976 among a group of persons attending a convention of the American Legion. This is where the name "Legionnaires' disease" came from.

Who gets legionellosis?

Men and women of any age can get legionellosis but middle-aged or older men, particularly those who smoke or drink heavily, are at a higher risk. People with chronic illnesses or those with problems with their immune system are also at a greater risk.

How is the organism spread?

The bacteria that cause legionellosis appear to be spread through the air when a spray of water is created by devices such as water taps, water-based humidifiers, room humidifiers, or old type cooling tower air conditioners.

What are the symptoms of legionellosis?

Many *Legionella* infections are never diagnosed because the symptoms are either absent or very mild. When symptoms do occur, there are two distinct forms of the disease: Legionnaires' disease and Pontiac Fever. Both forms of illness begin with flu-like symptoms, including loss of appetite, tiredness, body aches and headache. Chills and a rapidly rising fever are usually seen within 24 hours. Persons suffering from Pontiac Fever recover within 2-5 days without treatment. Many of those with Legionnaires' disease will get pneumonia.

How soon after exposure do symptoms appear?

The symptoms for Legionnaires' disease appear anywhere from 2-10 days after exposure to the organism, usually 5-6 days. For Pontiac fever, the incubation period is shorter, between 5-66 hours, most often 24-48 hours.

Where is the bacteria that causes legionellosis found?

Legionella are widely distributed in our environment. They have been found in water from hot and cold water taps, hot tubs, hot water tanks, air conditioning cooling towers and evaporative condensers, creeks and ponds and soil along their banks. The organism can survive for months in drinking water. Because these organisms are so common and usually do not cause disease, testing of the environment is not usually done unless more than one person becomes ill.

What is the treatment for legionellosis?

Specific antibiotics prescribed by a physician are used to treat legionellosis.

How can legionellosis be prevented?

Prevention of legionellosis is based upon proper maintenance of heating, cooling and plumbing systems. Commercial cooling towers should be drained when not in use and cleaned periodically to remove scale and sediment. Hot water tanks should be maintained at 122°F to prevent growth of the bacteria. Persons with hot tubs and whirlpool baths should take special care to keep them clean and free of *Legionella* bacteria.

